To: Szerlog, Michael[Szerlog.Michael@epa.gov]
From: Dean, Heather
Sent: Tue 2/7/2017 9:42:15 PM
Subject: RE: HTL-Additional Elevation Info

An average of the six.

From: Szerlog, Michael
Sent: Tuesday, February 07, 2017 1:38 PM
To: Dean, Heather <Dean.Heather@epa.gov>
Subject: RE: HTL-Additional Elevation Info

Heather,

May need a verbal explanation some time. Not sure I am quite following, is that an example of one of the 6 sites, or an average of the six?

Thanks

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szerlog.michael@epa.gov

From: Dean, Heather
Sent: Tuesday, February 07, 2017 12:28 PM
To: Szerlog, Michael <Szerlog.Michael@epa.gov>
Subject: HTL-Additional Elevation Info

Hi.

While working on the draft memo for the potential special case, it occurred to me that, while NOAA neither publishes, nor can easily calculate, some of the additional tides we considered, we can—because we know the frequency with which they occur—estimate their approximate elevations for the six study sites where I've recorded all of the high tides in the last 19 years. Upon that realization, of course, I had to take it a step further & see what they would be. I don't know how germane this information is to the overall discussion, but thought you'd be interested.

As a reminder, those additional tides were:

King Tide (spring & perigean tide combined; once every 3 to 4 months)

Perigean High Tides (once every 27.6 days)

Spring High Tides (twice every 29.5 days)

Tropic High Tides (twice every 27.5 days)

Interestingly, spring, mean monthly highest (which actually occurs about twice a month at our sites), & tropic were all very close, with only about a third of an inch separating all three of them. Except for MHHW, each one is only a few inches different from its nearest neighbor(s), despite sometimes big drops in frequency. Here's a graphic showing the relative difference between the average elevations, over the six study sites, from highest to lowest:

HAT	2.8"	MAHT	2.1"	King	4.9"	Perigean	
	⇒		⇒		⇒		